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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,255	10/27/2003	Sjaak Schel	1316N-001689	2693

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EXAMINER	
SY, MARIANO ONG	

ART UNIT	PAPER NUMBER
3683	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/694,255	SCHEL, SJAAK	
	Examiner	Art Unit	
	Mariano Sy	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7,10-19 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7,10-19 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 39, 2005 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7, 14, 15, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugahara (US 4,907,495).

Re-claims 1-4, 7, 14, 15, and 21 Sugahara disclosed, as shown in fig. 4, a damper comprising: a pressure tube 30 defining a working chamber; a piston 29 dividing the working chamber into lower and upper working chambers, said upper working chamber sealed to eliminate all direct communication between said upper chamber and an environment outside said damper a piston rod 27 defining a cavity 28; and a compensator 25 disposed within said cavity, said compensator being with respect to said pressure tube; said piston rod defines a vent hole 36; wherein a surface area of

said piston exposed to said compressed fluid in the other of said upper and lower working chambers is less than said piston surface area; a connecting rod extending between said compensator and said pressure tube; said connecting rod being attached to an end cap; said compensator sealingly engages said piston rod; wherein said compensator is in communication with the other of said upper and lower working chambers.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4, 7, 10-12, 14-18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawai (US 6,511,085) in view of Kishimoto et al. (US 5,513,108).

Re-claims 1-4, 7, 10-12, and 14-18 Sawai disclosed, as shown in fig. 3, a damper comprising: a pressure tube 90 defining a working chamber; a piston 118 dividing said working chamber into a lower working chamber 100 and an upper working chamber 116, said upper working chamber being sealed to eliminate all direct communication between said upper chamber and an environment outside said damper; a piston rod 134 defining a cavity 162; and a compensator 156 disposed within said cavity, said compensator being stationary with respect to said pressure tube; said piston rod defines a vent hole (top of piston rod to a connecting tube 218 shown in fig. 2); a connecting rod

152 extending between said compensator and said pressure tube; said connecting rod being attached to an end cap 94; said compensator sealingly 158 engages said piston rod; wherein said compensator is in communication with the other of said upper and lower working chambers; a flow path 122,124 extending through said piston; a compression valve assembly 128 and an extension valve assembly 126 are attached to said piston; wherein said piston defines a vent hole in communication with said cavity.

However Sawai failed to disclose the vent hole extending between the cavity and atmospheric pressure.

Kishimoto et al. teaches, as shown in fig. 1, an air spring having an internal passage 40 of the piston rod 18 can be connected to a pneumatic pressure source or the atmosphere (see col. 5, lines 44-52); and that the air suspension system may be applied to hydraulic suspension (see col. 15, lines 37-39).

It would have been obvious to one of ordinary skill in the art to modify the damper of Sawai with the piston rod with vent hole extending between the cavity and atmospheric pressure, as taught by Kishimoto et al., as a matter of design choice depending upon type and size of application and cost.

Re-claim 21 Sawai disclosed, as shown in fig. 3, a damper comprising: a pressure tube 90 defining a working chamber filled with hydraulic fluid; a piston 118 defining a piston surface area defined by the outer circumference of said piston, said piston dividing said working chamber into a lower working chamber 100 and an upper working chamber 116, said upper working chamber being sealed to eliminate all direct

communication between said upper chamber and an environment outside said damper; and a piston rod 134 extending through one of said upper and lower working chambers; wherein a surface area of said piston exposed to said fluid in the other of said upper and lower working chambers is less than said piston surface area; wherein said piston rod defining a cavity 162 and said piston rod defines a vent hole (top of piston rod to a connecting tube 218 shown in fig. 2).

However Sawai failed to disclose the working chamber is filled with compressed fluid and the vent hole extending between the cavity and atmospheric pressure.

Kishimoto et al. teaches, as shown in fig. 1, an air spring having an internal passage 40 of the piston rod 18 can be connected to a pneumatic pressure source or the atmosphere (see col. 5, lines 44-52); and that the air suspension system may be applied to hydraulic suspension (see col. 15, lines 37-39).

It would have been obvious to one of ordinary skill in the art to modify the damper of Sawai with the piston rod with vent hole extending between the cavity and atmospheric pressure, as taught by Kishimoto et al., as a matter of design choice depending upon type and size of application and cost.

6. Claims 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawai in view of Kishimoto et al. as applied to claims 1 and 14 above, and further in view of Sugiura (US 3,784,179).

Re-claims 13 and 19 Sawai as modified failed to disclose wherein said flow path on said piston is an open flow path.

Sugiura teaches, as shown in fig. 1, a piston 12 having open flow path 15.

It would have been obvious to one of ordinary skill in the art to have modify the piston of Sawai, as modified, with open flow path, as taught by Sugiura, in order to enhance variation characteristics of damping force.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Adams (US 3,734,483)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariano Sy whose telephone number is 571-272-7126. The examiner can normally be reached on Mon.-Fri. from 8:30 A.M. to 2:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor, can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Sy

August 30, 2005

THOMAS WILLIAMS
PATENT EXAMINER

Thomas Williams
AU 3683
9-2-05